

Sohn

121

Sep. 17, 1962

Part 1

1, 2

Bed 1 - Bed 3

3

Em. Gadi K 3-6

4

Em. Gadi Kib. 1st Em. Gadi

5, 6

Kib. 2nd Em. Gadi

9-17-62-1

Gravel below Upper arch. excavation. pebbles for NW Matrix for ostr. Upper Lisan Em. Gadi

9/17/62-2

Lisan, near road cut at

Ostr.

road cut at 300 yds from Em. Gadi

1875-0964

9/17/62-3

Unit Barch - C2 shale

Box 2

lower pt. C2 section which is 40 ft ±

Jerusalem to Bar Shava to Sdom to Em. Gadi.

At Em. Gadi to spring, all the way

then to excavation with Lisan

beach pebbles with ostr. on dirt rd. S. of Em. Gadi. A Cl. varved Lisan clay.

To Unit Barch up canyon saw C-2 + coal also shale oil shale.

Evening in Bar Shava

Bendor
Y. Nir
S.

Sept 18, 1962

Machtesh Katan

9/18/1. # photo 7 or 8 showing hammer & bag
No fossils
Discard bottom 1'± of glauconite

above Nubian ss.

pic 8-9 loc. above 9/18/1 looking W
bottom Nubian upto C 4 or C 5.

9/18/2 Top of C-2 with Gastropods all in
5' interval. Platy ls + sh. may be below
other part of C-2 with fossils.
Shale in C-3 Yarkov Nir
MB 281

9/18/3 Rd out of M. Katan
Massy layer of C 4
171 + 040

9/18/4 Glauconitic sh. Nachal Tzafith
pic 10 173/045 "
on Turonian? Onyx Y. Nir & Guri "Uzzi"
Onyx - 1745/0448

9/19/62

S from Ber Shecha to
1st rd. W.

9-19-1 Paleocene at rd. fork.

Nitzana - Eilat. calcareous shale highly split.

pic 13 Cross bedding in Eoc. Ls.

1 PM contact Coord 008 333¹¹⁰_{TT}pic 12 Nabatean field wide
walls and Arab? furrow

pic 11 from car Nabatean dam

" 10 small field Arab?

9 Beeraim outpost, religious group

pic 14 Nabatean ^{prob. Arab} bins for storage, car window

16 " bin at head of wadi

✓ 17 Geologists with guns

18 Hill above 17 looking N

on Eocene

19 - same hill looking S. Proteoidea
Trees not in their ecology! warmer before.

9/19/2

2 days.

0500

Berot Kedem near Chafir

~~Gharb~~ Gharb yar. (Mastrotia)near well. chalk with limestone
streaks. Wells dry, large well
with cat-tails. Coll. outcrops
above and slightly N of well.

20 Mastrot ? same as 14

24 - stuck radio truck

105 N - 013

9/19/62 p. 2

Left Bersheba in car and a tender
 with a radio and a sergeant to work
 it. Contact could not be made, so we
 stopped at Beerotaim a Nabatean
 out of religious group. The soldier
 wanted to have the radio repaired at
 Nitzana - an army post.
 Waited 2 hours at Beerotaim.
 The boys & girls soldiers were very
 nice, argued as to who should
 watch. Girl went to gate with
 gun but no bullets. German shepherd
 watch dog - very mean.
 Radio repaired went S. on
 local rd. saw many Nabatean
 dams. Nabatean village not
 visited. On return trip tender
 (radio truck) stuck in sand.
 Pulled out and continued in
 dark to surfaced rd. Had to
 wait for tender to check
 out of security station -
 "quicker than by radio".
 Arr. Bersheba at 8:30

Bentley
Mobs
Nir

or Middle of K fm.

9/20/62

9/20/1

Top (Bentley or can?) near ^{measured} section
marker on top of cliff. Nuclear Traps in
section 62-5 measured
~~11920~~ 11920/02760 or 1120000
map.

9/20/2

Merricks 27'± below ^{base of} ~~Top~~
chart. 11915/02590

9/20/3

11800/02200

M. M. Eocene (Me₂)

9/20/4

M. Eocene below Traps point.
same bed as echinoids
11540/02060

9/20/5

Weathered, down rd from 9/20/4
spalled from rocks at side of
rd. 100'± below 9/20/5

Report - Manager & Survey Geology
Shifts - Asst. Manager - Geology
Reiss - ~~Asst.~~ head Paleont
Dept. each Manager & Asst. C.G.
Branches.

7

Northern Galilee

Oct. 1, 1962

pit 14 2 N end of Kinevat? Korazim
Taken from Spad-Rash Pina Rd.

" 3-10 Hule fish ponds to N & W #9 & 10
line of section, 9 Nubian ss (Wealden)
at lower pt of L Cr. S III a, cliff is
LCrS III b.

11-12 Lebanon boundary Metula
Sleep Metula - sick.

Oct. 2, 1962

pit 13 Outcrop cliff from town.

The Merara section consists of a draw that is very steep and shallow. A road leads up to base of draw where Nubian ss. crops out. Above the ss. are L.C. marks to a small cliff and above that a sheer cliff "Blanche". On Oct. 1 we searched for contact with N.S.S. (Wealden) and with cliff - could not find. The day was terribly hot. I started a "migraine" - spots before the eyes in Natanya. Bought "MIGRANOL" for 3.22 and took 2 tablets at 9 AM. The spots left but I was sick the rest of the day.

Oct. 2 returned to loc. below Merara. Took 2 samples of clay beds in Nubian and samples of soft Cr III a up the draw.

O.F. 2, 1962

10/2/1
pit 14Wealden, sandy clay above ss.
near lowest pt of exposure = MH 69.

10/2/2

6" clay seam in Wealden ss 200' ± S. of #
35' ± above 10/2/1 taken at base
of Wadi of section, above place of well.

10/2/3 ✓

Aptian Lcr III a, within a few feet
above base. Contact with Nubian (Wealden)
obscured, but this is below a ls ledge
and is probably near the base of
Lcr III a. Wadi with section starts here
= MH-82A, white ss. below sample

10/2/4 ✓

above 10/2/3 below Ls 2 1/2" at side of draw
= MH-91

10/2/5

Ls above 10/2/4 (directly above) = MH 92
Ls 2 1/2' ±

10/2/6 ✓

Sh. = MH 95

10/2/7

Sh below Ls = MH 101 above Taurus sh.
Ls.

10/2/8

Sh below Ls layer = MH 114

10/2/9

= MH 121, Ss with clay intercalation
sample of clay hand picked from ss.
clay 2 mm ± thick

Oct. 3, 1962

Return to wadi below Menara to
continue section

10/3/1

clay ls. about middle of small cliff
near top of LCrS IIIa = MH 137

10/3/2

Fossil ls. top CCrS IIIa = MH 145

10/3/3

Sand 20 cm = MH 159

Oct. 4, 1962

Hammuli dropped a rock on
my head - walked to

Kiryat Schelomo and had
a metal clip inserted

returned to Jerusalem

7 P.M.

Nov. 13, 1962 Menchem. Greenham
Machitesh Hattura (Gadab)

Lower Cretaceous

11/13/1 2nd sand sequence below clay
5' thick. = MG 142-144 ✓

11/13/2 base of clay above 11/13/1

11/13/3 Middle of sequence near top
bottom

11/13/4 Top of clay

11/13/5 ~~On~~ Main oolitic layer.
1st. Marine intercalation.
No macrofossils = 278-279.

11/13/6 Bentonitic(?) bed 2 meters thick,
between two thin iron beds
at base = 290-291

11/13/7 middle of bed = MG 292

11/13/8 Top of bed = 293

11/13/9 1'± above 11/13/8 = MG 295
Marl clay about 18' thick
bottom 1 foot ✓

11/13/10 2± meters above 11/13/9 = MG 300

11/13/11 2 m ± above 11/13/10 = MG- 307-308

11/13/12 Top of bed 2 m ± above 11/13/11 = MG 315-316

Nov. 13, 1962 p. 2

11/13/13 = MG 508, shaley below,
3rd marine intercalation

11/13/14 clay part(?) look for U₂
= 3rd marine intercalation
MG 538 ±

11/13/15 Ls. marine fossils & well-bedded,
with gypsum To 1/2" veins.
MG 544 ±

11/13/16 chalk lens in clay
NO 5m. below main oolite layer

Wadi Halfa

11/14/1

Uppermost part of Jurassic
Marl + mega. 2m \pm below Top
Oxfordian Middle pt of Ber Sheba ls. Mar. 12. B.

11/14/2

Marl below Topmost
coral zone about 3'
above white ls.

11/14/3

Sponges in marl below
coral bed

11/14/4

Marl with megafossils
25 m. \pm below Top

11/14/5

Brachiopods? 1 m \pm below

11/14/6

11/14/4/ cut near Lirt road
about 40 M below Top of cut
L. Cret. 1513 / 0388All above ^{are} Ber Sheba ls.

Tiberias

Dr. J. Lorch
Baida
Tanner

Discarded Dec. 2, 1962

Pict 1 (11) Knife belt 3 # 4

Pict 2 (2) looking W 3 to 5 (5 is yellow)

" 3 (13) going to 1

" 4 (14) Hammer on bedding plane near

Base of 13

5 ditch
6,7 hammer on 12/2/11 + 2nd at plants

12/2/62/1 Sample across ditch

from pict. 1 (11) = 2 + 3 of Baida
of Trench 312/2/62/2 on top of 1 = 4 of Baida
side of picture

12/2/62/3 = 5 of Baida above 12/2/3

12/2/4 = 6 of " " "

12/2/5 = 8 III to 7 Baida

12/2/6 = 9 III

12/2/7 = 11 III

12/2/8 = Gray zone in 13a

12/2/9 = 16

12/2/10 = 23 above artifacts in # 20

12/2/11 = 21 base above gravel

Dec. 3, 1962

- 12/3/1 Water from L. Tiberias
- 12/3/2 Clay on shore & bottom of L. Tiberias
at Ohalo - where to stop -
last 3 pictures from Ohalo
- 12/3/3 Pliocene, Top of basalt Ridge on
the Tull road. Oriented blocks
with oblique, upper pt. of
Plioc. calcic ls.
- Pict. 1-3 - Plant loc = 14 of Trench 3
- 12/3/4 = 53 of Trench 3
- Pict. 4, 5 Syncline N side Trench 3 E of 14/3/4
- 12/3/5 Oriented bed 11 near top 2 yrs W 57°
Water sample without label
from fish pond.
- 12/3/6 Lisan W. of Beit Zera

Dec. 10

- 12/10/62/1 Lisan rd. to Slom Irish Bridge
Nachal Tamar
Most sample from clay just
above river gravel and below 1' bed
1807/0441 50'-75' from road
- 12/10/62/2 Clay on Slom-Ein Gedi Road
100 meters SW of end of Gas pipe
at Bromine Plant
Approx 20' below the white V. Lisan
probably M. part of Lower Lisan
1850/0496
- 12/10/62/3 Cross bedded truncated Lisan? or younger
1862/0509 foot hills of Mt. Slom
near Pump house & Black House.
- 12/10/62/4 Live ostracodes from sulphur
springs near Ein Channel 20m
- 12/10/62/5 Lisan? or older under large
sized boulders of Recent age.
S. of Ein Bagan
Kilometer stone 20.5 from
Slom.
- 12/10/62/6 Lisan filling old River Channel
Nachal Mo' 5' bedded gypsiferous
mud about 200 m. from road, not
far 200 m. E of Main Fault.
1850/0739
- 12/10/7 Lisan, near old springs 150 m S. of
Slom Ein Gedi Km 43
reworked.

Dec. 11, 1962

12/11/1

1 1/2" ± yellow grading down to brown clay below 1/4" ± gray layer

12/11/2

1 1/2" ± yellow and gray below

12/11/1

12/11/3

2" ± darker laminated below

only

12/11/2

≡ { 12/11/1

≡ { 12/11/2

≡ { 12/11/3

12/11/4

ostr.

Alternating Gray and yellow

6" about 6" above 12/11/1

Pict 10-

12 Lisan where ostr. were found

" 13

El Gedi Spring Live ostr.

Small sample

" 14

David Spring, large sample.

12/11/5

No fossils

Clay in center of Quarry just E of Dimona - may be Hatceve

Timing mine

Dec. 16, 1962

12/16/1

Shale in Lower variegated
Nubian SS. LE - *Gnomonic*
3" \pm in ss.
Trias? or younger

12/16/2

6" bed of shale in abut.,
strat above 12/16/1

— copper ore in upper level

Dec. 25, 1962

Jozk Bet Avot (NE of Tel Aviv)

12/25/1

~~Disc~~ 12" hole in front of Dining Room
about 6' below surface, sand
below ~~yellow~~ Brown Top soil
Probably a sand dune.

1/16/63

1/16/63/1 Madhesh Gahol

1/16/63/2 12 m ± below 1/16/63/1

1/16/63/3 old cut opposite Abu Sir.
Bentonite on top of ~~clay~~ sand
Albian.

U12

1 6' ± sand near Top of sequence
above 2nd marine intercalation

2. Bentonite, Albian, 0395/1522
same as 1/16/63/3

0.1

Machtesh Ramor

Jan. 21, 1963
Mr. Price
Naphta Oil Co.

see Zak's section for details



- 1/21/1 Bottom fl. sh. kachula etc (15 m. 2)
A. to Levinson 11/1963
- 1/21/2 Green 6.4 m.
- 1/21/3 Ls. point 12 interbedded with sand
4 about 7' above (3) sh. variegated
(5) laminated Ls. point 18
~~Dissected~~
Ostr. 6 Ls. Gestr. pt. 23
- Acid 7 Ls. above (6) foss. in shale sequence
Wash ostr. 15' ± above pt. 22
- 8 Ls with brachiopods & Gestr. (point 24)
Acid (-) *Terr. Diakasma julia*
Wash ostr. on top of ridge near stake, 2 bags.
- 9 Top of Anneling, not in line of sec.
ref. 6 weathered on dip slope
1382/9995
- 10 Middle of reef 79 ± 5' below 9
- 11 Top of Ls. sequence point of station Y
~~Dissected~~ bluffs in background

Jan. 22, 1963

p. 1

Starting T. 3

pict 8.9

8 - West dipping T2 & T3

9 - Looking W on T3

1/22/1

Looking
at str.Massive ls. in wall Top of Vermilion ls.
plus weathering just above bed point X21
T3 6.0 m. above base of T3 on section

1/22/2

Weathered 2 m \pm below point 27 ls. 5.1 m
below ls. 5.1 at 200 m on sec.

1/22/3

Massive ls gray pt. x28

Disc

= Zak #5

1/22/4

Forming

Platy red ls. in road 1' \pm above
station X, bet 1/22/1 and 1/22/2
0.5 m. of x-lens ls in section

1/22/5

Dark

Massive ls. just below 1/22/4 on str. X

1/22/6

Dark

foss ls. above 1/22/4 point x26

1/22/7

ls. point 31

1/22/8

ls. pt 33 above "unconformity" ls

(1/22/9)

Marl pt. 34 Missing

1/22/10

ls. 2' \pm weathered red points 35-37

Part from

1/22/10, 10-13 looking E 14/5 W. Look where you
see rd.

1/22/11

Green sh & overlying ls. point W 3
forms dip slope

Jan 22, 1967

1/22/12

Soft above. (11) below thin
ls.

St. 8 on ls

1/22/13

Yellow marl St. 14
below platy ls. on gray dense ls.
below 279.34 of section T5
Garnian.

1/22/14

Base vermicular ls. St. 16

1/22/15

Brown gyp. interstone point 29.

1/22/16

Station W. cruddy ls. + marl. E

1/22/17

Marls immediately above the gyp
of the Quarry above ~~12/2~~ 1/22/1616#17 in N. of Gyp. fr. But
above gyp. of Quarry

Machates River
Feb 10-12, 1963

Plants Neck

2/10/1
Box 2

to Cooper

2/11/1
Box 2

Backward looking near
confluence with Magistrate
interruption at pit. 138/9988

2/11/2
Box 2

Plants here true 138.5/9995

2/11/3
Box 4

Zone 5 of Range, Texoma
1382/99814

2/11/4

LS. above Gypsum vein? soft
stuff above flat surface W. rd.
at pit? about 10' above rd.
interbedded or slump on stratum
1376/0010 = T7 (type section)

2/11/5

Middle Jurassic continental
lakes & fluvial. Don't
know plants, white wind blown
clay, sand, again sample
of Ironsand & ironstone
plants 135/005

2/11/6

Lowest red. massive fossil.
layer. Jura. above ep/s
Bathonian

2/11/7

Lithog. ls. foss. in dolomite, also
Bathonian

2/11/7

2/11/8

Sandy marl on dolomite
Morris Cr. intere
1335/0027

2/21/11

2/21/11

~~2/21/11~~ 6/21/11

2/21/11 6/21/11

- 2/12/1 Marly guessta
 obs. 2100 Lias. above flint clay
 in main mine
- 2/12/2 Pleistocene scum
 in wadi after picture
- 2/12/3 Red guessta channel
 obs. section 4 from Talus
 near dike
- 2/12/4 Top of red guessta, Vermilion
 obs. zone near dike
- 2/12/5 calcarenite Top of Trias, below
 flint clay Nardol Ardor
- 2/12/6 80%+ ls. wedge on Eypsum
 coll below LS & ls. U. Trias
 Wadi Ardor
 top of Marly sequence (Jurassic)
 Hill in Wadi Ardor
- 2/12/7 12'± below 2/12/6 = U. Trias
 North side Equir to Gypsum = T7
- 2/12/8 T1 E end of Rm (contains with
 Cret.)
- 2/12/9 Weathered with crinoids T1
 Hat Saarvorn T2 - T4? probably T2



2/12/10

Marley Cuesta
W side of main highway

2/12/11

1st Marine intercalation
on Rd to Mitze Ram
red ls. and marl on top.
Call. green Marl



Memorandum
 March 19, 1963
 Copy of Oct. 2, 1962

- 10/2/2 6" clay season in Nubian
- 10/2/3 Below LS ledge, above white SS. (left side)
- 10/2/4 above 10/2/3 below LS, 2 1/2" on RT side of draw.
- Joe Bernasi roll 5 film 30 of 3/19/63/1

- 3/19/63/1 Channel sample 3' ± of wet brown clay, N side of draw 10'-15' above Nubian SS. soft & soluble
- 3/19/63/2 Yellowish hard stuff 1' ± above 3/19/1
- Picture 19 of bag at level of sample
- 3/19/63/3 P. of Hammer above bag on sample 3' ± layer between LS just above also some of LS below 1'
- 3/19/63/2

Put 20 - Granular showing 2093 sample

(over)

Put 20 X 20



The slope above volcanic slumps is
 wet greenish clay (sample 1) overlain
 by yellowish material 2-3' (sample 2)
 and harder yellow marly ls.
 (sample 3).



Mt. Carmel

Vahman

March 20, 1963

3/20/1

0518

Middle Cenozoic Chalk
 "Cz" on rd. between Rodes State
 and the village of Esfya Istpa
 on rd side exp. Top of Carmel.

Road station x 1 km.

→ Istpa

3/20/2

6518

Dahliq marl (L. Turonian) S.
 of town of Dahliq near rd. old pits
 marl below base Turon.

3/20/3

Road bet Bat Shalom to Zikhron

Yaakov. Quarry in Paleocene(?)

S. of Shafeya on map. mapped as

Senonian. Quarry S. side of

Rd. W of large Quarry which
 is ~~at~~ of Rd.

3/20/4

Box 4

Wadi Shalala below Kibbutz

Bat Oran M. Cenozoic with layers

X 1/4 to 1/2

with radiolites. Siliceous

Mabute River

In 2nd

March 27, 1963 P. 1

3/27/1

ss. from base of second member
Lowest fossil bed. below
in strata T1 - 27.7 m. sec.

3/27/2

Silty ss. & sh. above 3/27/1 separated
from ss. by red sh.; Above this is
a sequence with wood, sh. & ss. including
T1 - 28.2 m.

3/27/3

Thin fossil-ls in shale with *Mophoria*
found *Placodus* Teeth & Hoss T1 - ~~78.5 m~~
bag & hammer on coll. 3/27/3 53.7 m

Pic 8 -

3/27/4

Prob. weathered *Beneckia* type or
just below that layer
highly fossil. ls. T1 78.5 m

3/27/5

First hard ls. Top *Beneckia* member
shale just below, sample of sh. & ls.
overlain by & bedded ss. T1 - 91.3 m

3/27/6

Shale, base of T2, Nylon bag
or very top T1 120.0 m

3/27/7

fossil. ls. with limonitic bands & sh. thin
same above and below.
sample of weathered ls & sh. 131.0 m T2

3/27/8

Mepl. strat above 3/27/8 at about same
place Middle T2, 149-151 m.

3/27/9

Large fossils float shale of 3/27/8
below wavy ls. horizon T2 145-147 m.

Pic 9

on 3/27/6 looking E. North T1, Top is T2

" 10

top of sec. was from 3/27/4 → N. T. T5 loc (1/27/13)

" 11 -

Slope of 3/27/6-8 from below

" 12

" 3/27/4-7 from SW along N

3/27/67 p. 2

10 — TS, new base 258.6 m sec.
13753/00003

11 — TS 260. m of type sec.
13752/00004

12 TS 261 m " "
13752/00005

13 TS 262 m.
13751/00007

27/14 *Hirgira Anticlinaria* just below point (A)
≠ Loc. 1 2/12/19 T51
1 1/2 miles below Lower
16 1/2 MT. Saharonim
very micritic.

8 miles above base of T5
Pict. 13 Cliff 2 3/27/14 from SE.

3/27/15 Immediately below top of T4

3/27/16 Fossilif. ls. 2a k's skeletal f. 15
U. pt. T2 ≠ 154 m of type sec. 14395/00121

Pict 14 L. Cret. marine sample with
Bivalves when it ranged

Pict 15 L. Cret. - 18-20 sample with Yalor.
16-19 M. Gadal from W to E

April 2, 1963
M. Goldberg

4/2/1

Box 4

Ls. about 14m above base
Type sec. bed 62/2/6A

coll. brachiopods and
weathered stuff representing
30' of wash & Cooper

4/2/2

Box 4

Near Kurnub 2 Type sec bed 62/2/2
shale with ostracodes lower
part of sh. 2B to 2D of section

4/2/3

Box 4

above 4/2/2 Bed 62/2/6

Brachiopods, small crinoids?
Megafossils to 16A Cooper

4/2/4

Box 4

Marl Israel G.S. type section 62/2/10
Reef developed above thin No Megf.
horizon -

Picture

Blew. 1 above Bed 2



4/2/5

More chalky facies of lithography
Ls above reef 62/2/26-6
2 perfect 2' plant fossil above
marked in black ~~No Megafossils~~
Cooper

4/2/6

Megafossils, IGS type 62/2/75-76
(may be wrong on field lab) Cooper

4/2/7

Box 4

1 km S. SE of Main type sec. line

≠ 62/2/126-133. Gyclic soft & hard

Vivian loc. Almost base of 20m shale

To G.S.

Pictures

April 2, 1963
P. 2

4/2/8
Ostr.
traces

Top of 62/2/102 on section
at base of Bar Shale ls. - Top
Zoar Shale - Microfossils

4/2/9
Box 1

Bed of Silicified corals &
large gastropods - maybe corals
has silic. Ostr. in Bar Shale
ls.

4/2/10

Base of Zoar shale 62/2/142

Ostr. area 200 meters down hill junction of I.R.

4/2/11

L. Cret bottom part Rd & Main Rd.
Brown & green

Discard

4/2/12

L. Cret, Upper pt. Green, bar. fossiliferous
15 m ± above 4/12/11
samples just below
pseudotrees.

Discard

4/2/13

Box 1

Pict. 445

First Merly layer in Concretionary
going out of M. Hettler, at
end in Rd.

with E. Zak
Ramon
May 2, 1963

5/2/1/63 10 cm± just below Gypsum

5/2/2/63 70 cm± below 5/2/1 has
some gypsum in it. Channel
sample C

Pict 4 col. 100 W hammer just below gyp. 48/1000/500
5/2/3/63 Dolomite ^{stale} & marl interbedded
with gypsum above 5/2/1 weathered
just and hard pieces to 50 cm above.
gyp. 3 cm. to 5 cm. thick.

5/2/4/63 15 cm. Tan ls. above thin
gypsum seam and above blue
& red shale. about 3' below 5/2/1
same outcrop. to W. 1500 F. 16

10#116/16W
5/2/5/63 bottom 2' of foss. Ls. weathered.

5/2/6/63 0.6 m. channel in shale below 5/2/5
sh. has gyp. stringer

5/2/7/63 sh. above Ls. of 5/2/5/63

1/1000 F. 14 & 13 for 5/2/7 Ls. above Zuch's shoulder
1st col. Scarp with U. tris. ostr. zone coll. 5/2/8 -

5/2/8/63 yellow marl below Ls. - T5

5/2/9/63 ≠ 3/27/12913; channel sample

at E. scarp
5/2/10/63 259 m. below 5/2/9 nested values

May 2, 1963

p. 2

5/2/11

Same as 3/27/63
Red & blue shale below
weathered LS.

5/2/12

Rotten LS. just above (5/2/11 = 3/27/63)

5/2/13

Sh. above 5/2/12 above white ss.

5/2/14/63

Shale in T1 between
& below organic ls.

Bl. 15 Cl. 6 F8 1/100 F14 1/100 Ec. 5/2/11-12



Pl. 16 rd 7 outstump 2 Turonian L. E. Ransom

5/2/15/63
Discard

Green shale above Stinkstein

5/2/16/63

Black friable & above 5/2/15

5/2/17

Stinkstein (very) yellow ls. plain
yellow is below 5/2/13; dark
be from better ground point

Em G. D.
May 7, 1963

5/7/1/63 Temporary pool Rd. Rock Zone -
E in Baker

Discarded Nothing

5/7/7/63 Learn Wadi [at Matsada
1 1/2 km. E of M. on wadi
direct road to restaurant
6" just below surface group
on N side of Wadi

5/8/1 2 jars Mason May 8

5/8/2 bag from pool (lower) below
den

5/8/3 30^{cm}-40 cm above 5/12/11/1
Bl. & W.

5/8/4 same as 12/11/4

5/8/5 3" just below 12/11/1

5/8/6 25 cm below 12/11/1

5/8/7 Matsada - cross bedded.

5/8/8 above crinoid W. of 5/8/7
1 1/2' ± channel.

Pict. Darnay

M6 P.2

5/8/9

Same? 12/10/3
 Cross bedded gravels
 with $5'' \pm 7$ finely varved
 about 7' above rd. level
 gravel also below.

5/4/10

2 bags. N of Wood house.
 Similar layer S. of Black
 wood house.
 Pitt. Quarry

Living Ostracodes

Ein Gedi spring live Darwinula with black spots, H. Rep
shells - Ilyocypris, ?, ?

Lake Tiberias, Live "Goerlichia" Darwinula brown spots
shells Ilyocypris
One Darwinula suspended 20 hrs. on film
of water, still alive.

Fish pond near Tiberias - Live Cyprid

Jordan Riv. Nir. Dec. live Ilyo? + Potamo? + Cyprideis?

Darwinula

Salts of Kinneret in same proportion 30 parts
per litre = sea water

Darwinula	died	in 24 hrs	in 30 pt / litre
"	lived	2 weeks plus	in 15 pt / litre
"	lived		20 pt / litre
"	lived		7 1/2 pt / litre

Naples

6
5/14/1

1 mile W. of Ischia Port
Pleistocene - Sequenza
type loc.

I.G. Schut

Triassic

Paris Basin

with M. Guillemin

July 18, 1953

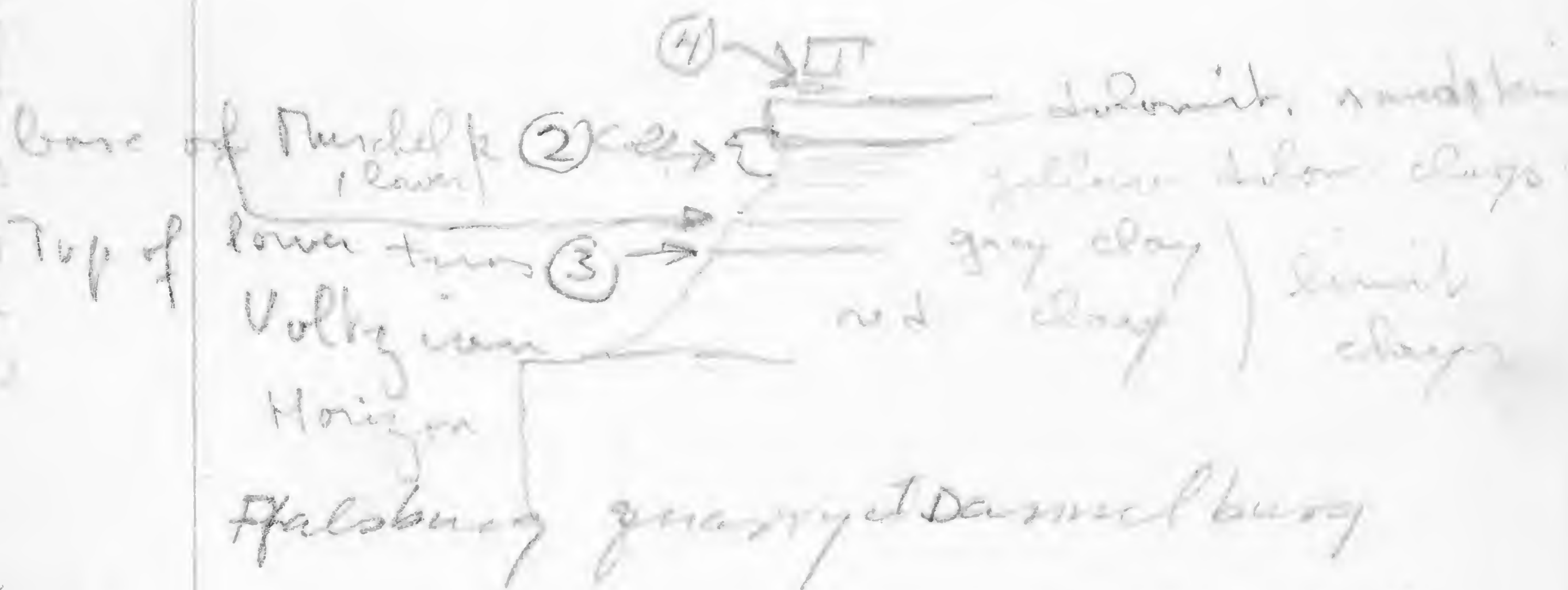
July 17

Met 2.

7/18/63/1 Ceratites bed clay ss. + ls.
 Rd cut rd #4 N of Bebing, gr. to
 Scarborough (side, sand - near rd on map)
 about 20' below top.

✓ 7/18/2 Quarry Top of Volcra - L. Murch
 Gress cognation 1 foot above
 limit clays
 ls. with Volcra and Top 2

Quarry from east side.
 Volcra is outside.



✓ 7/18/3 above & below limit about 1' below
 7/18/2

7/18/4 clay + ss 2'± above 7/18/2

7/18/5 Rd N of Mottel brook, 1 km. side of rd
 prob. thrown from field Base of well known of
 Rd 4 - coll from bank on it. 100'± S of car. Muly
 7/18/5

No 75 Blatt Pfalzburg - Germany has
 Geology of above area

Muschelk.

Tyro
+ France

↑ +8 m

July 18, p. 2

7/18/6

M. of Lower Muschelkalk



Wellenbühl

Myatkes bed →

50'

(-15 m) ↓

Sandstone

7/18/6 Middle
Myatkes bed
with crinoid
clay structure
from dolomite

Terebratulite zone

V. Phigian

N of.

Siewiller - new road bldg.

Side 7 rd. Pict. 5 & 6

Rd. 67 on map.

Pict. 7 Sarre-Union
Muschelkalk landscape

Trigloporus beds at base of 7 m
Trachilasma (Falconi & Troger)

= Top Middle Muschelkalk

Ceratites zone about 7 m above base

contains macro fossils
1st clay zone Trachilasma (Falconi & Troger)

7/18/75

Pict. 4

7/18/5

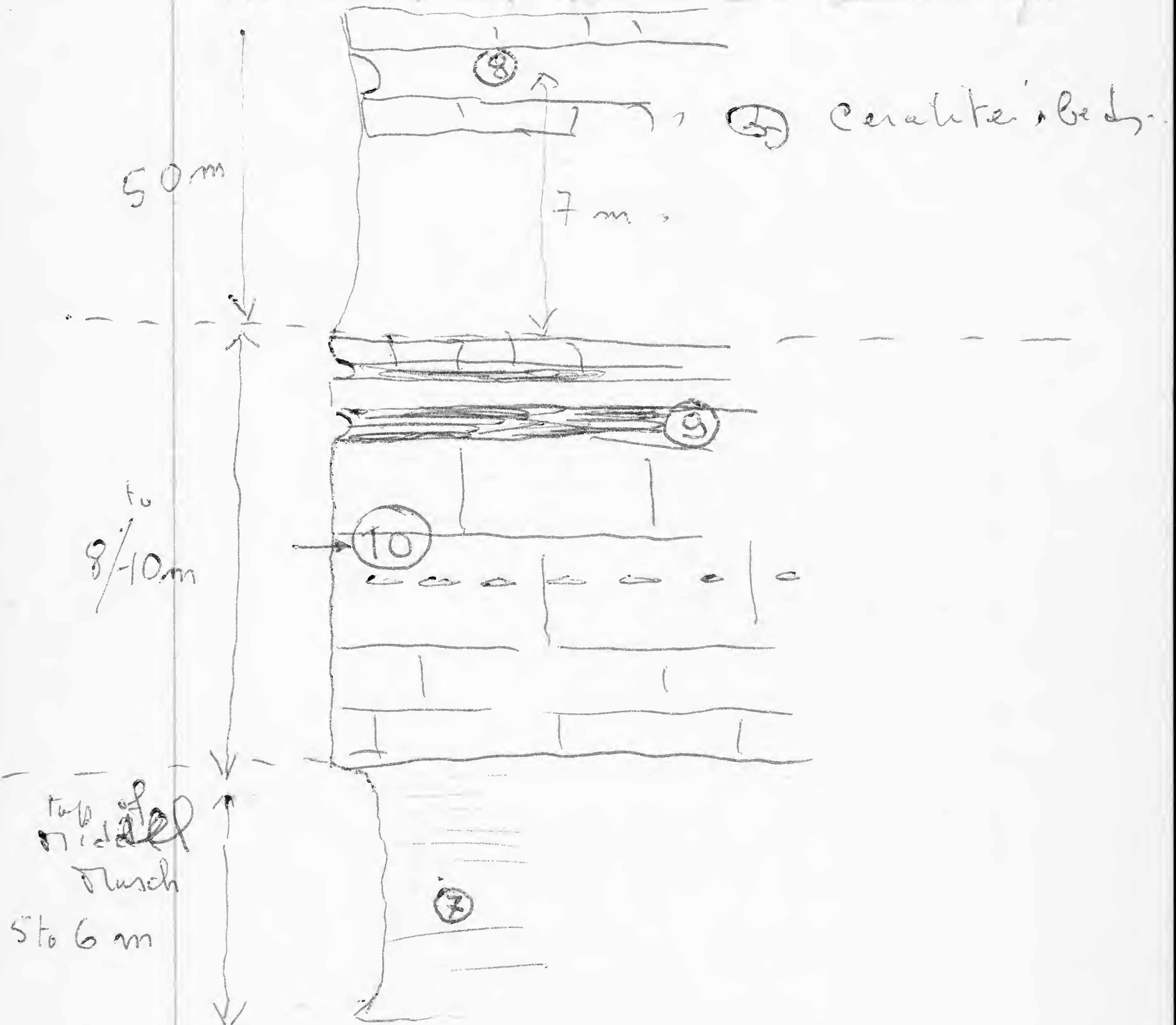
C. 507

7/18/9

Trias, France

7/19/13 p.B.

7/18/10

oolitic layer in Middle of
Trochiten Hall about 3 m below Top

7 to 10 Zetting, N end of village near
restaurant, cut for parking place
is coll 7/18/7, 8-10 above.
pict 8, 9 coll 7 m 8, coll 10 above pict 2
pict 8
pict 9

Trias, France

7/18/63 p. 4

Pic 10, 11 Maginot line

7/18/11

Carrières zone in Quarry
S of Maginot line

Witting Quarry

7/18/12

Middle pt of Lettenkohl
S E. end of Klein Eberville
(Petit Eberville)

7/18/13

About 4 m. above 7/18/12
Lettenkohl

W side of Klein Eberville

7/18/14

Just above Lettenkohl, base
of Keuper in Sauer Trunk
at Hallmont Versheck

7/18/15

Marl at Top of Lettenkohl
1' below 7/18/14
Pic 13-15 detail & cover

7/18/16

ostr.

RR cut HTBL NW Faulquemont
Terebratula Kalk

1 m under Top of Muschelkalk

7/18/17

ostr.

Marl below 7/18/16 west end of
cut 5 m under top

Pic 16 & 17 RR cut

Trias, France

7/14/18

7/18/53/ps

Ls. just above 7/18/16

7/18/16 is weathered

just below 7/18/16

This is top of Muschelkalk
containing Strophomena ova

Met

Dr. M. Guillaume son of
Louis G. in Hotel Canotier
Mets at 7⁴⁵: Drove to
Pfalzburg, Trias is rolling
topography (see photos)
and exposures are poor.
A few road cuts, several
quarries, one sewer
ditch for new house and
one RR cut were visited.
At least one sample from
each M. Trias was collected.
Arrived Mats RR at 7⁵⁶ PM.
in time to catch 8:03 train
to Paris.

Mr. G. talks to himself.
He promised to ship all
but coll. to see U.S.
sent regards to Cliff May.